

# **Downey's BMP Strategy for Managing Stormwater Runoff**

## ***What Do the MS4 Permit Annual Reports Tell Us About BMPs?***

Southern California Association of Governments  
Water Policy Task Force Meeting of March 9, 2006

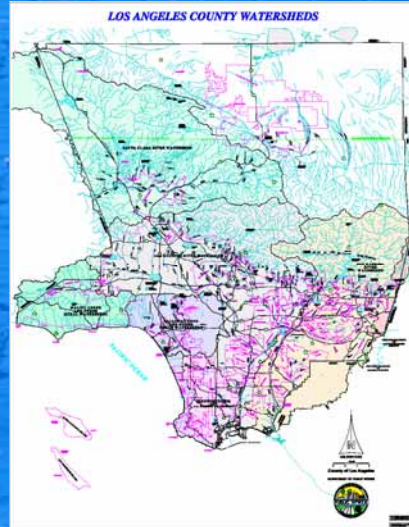
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## **MS4 Permit (Order 01-182)**

- LARWGCB adopted December 13, 2001
- 5 year duration with 2006 renewal
- Requires permittees to submit an Annual Report
- Many Total Maximum Daily Loads (TMDLs) adopted for 2006 MS4 Permit implementation
- Standard Urban Stormwater Mitigation Plan (SUSMP) is important tool for future structural BMP implementation/installation
- So what are the municipalities doing?

## MS4 Permit Watersheds

- Dominguez Channel
- Los Angeles River
- Malibu and Rural SMB
- San Gabriel River
- Santa Clara River
- Santa Monica Bay
  - Ballona Creek & Urban
  - Malibu Creek & Rural



## Hazards of Interpreting Annual Reports

- Some cities forget to submit (new staffing)
- Different BMP reporting criteria
  - Only what city installed on city projects
  - City projects and SUSMP (or GCASP)
  - All BMPs installed at all kinds of projects
  - Any amalgam of the above options, since this years annual report is due in 30 minutes!
- Individuals use different BMP descriptions
- Making comparisons is challenging



## Best Management Practices (BMPs)

- Many actions, devices, structures, etc.
- Among the more prevalent
  - Public Education (brochures, PS spots, hits)
  - Trash cans (more, covered, recycling, etc.)
  - Street/lot sweeping (more, vacuum, focused)
  - Inserts (screens, absorbents, biocides, filters)
  - Diversions, trash nets, ↓ materials exposure
  - Advanced treatment systems (RO, GAC, etc.)
  - **Decrease runoff and increased infiltration**

## BMPs Installed During Period

- All Watersheds-All Agencies
  - Pre July 2002 1,029
  - July 2002 to June 2003 >52 cities 2,780
  - July 2003 to June 2004 59 cities 5,829
  - July 2004 to June 2005 70 cities 23,697
- All Watersheds, excluding LA City/County
  - July 2003 to June 2004 4,487
  - July 2004 to June 2005 20,268

## Selective BMP Analysis

- Subtract 16,000 covered trash cans from one city in 2004-05
- Subtract 1,343/1,400 parking spaces steam cleaned in 2003-04/2004-05 by one city
  - Pre July 2002 1,029
  - July 2002 to June 2003 >52 cities 2,780
  - July 2003 to June 2004 59 cities 3,144
  - July 2004 to June 2005 70 cities 2,868
- WE ARE STILL LEARNING ABOUT BMPs

## Infiltration Devices in Downey

- Planters, swales and basins
- Porous surfaces
- Inverted street/parking lot cross sections
- Surface/underground rock trenches
- Perforated pipe, French drain systems
- Cultec®, Rainstore<sup>3</sup>®, Stormtech®
- "Forensic" review, "good BMPs, gone bad"



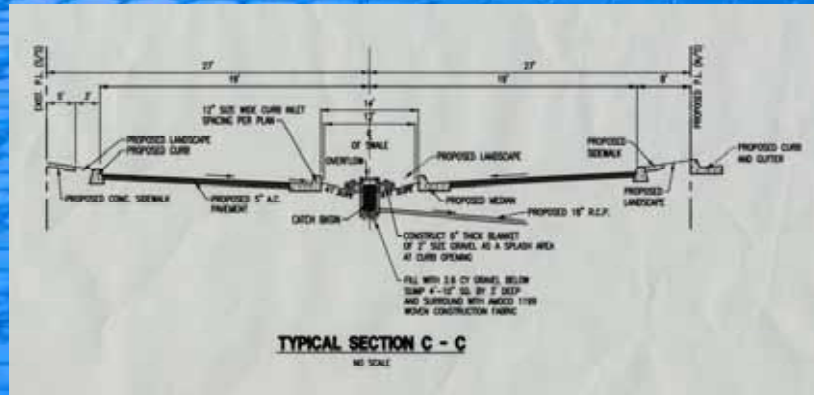
## Rio Hondo Golf Course



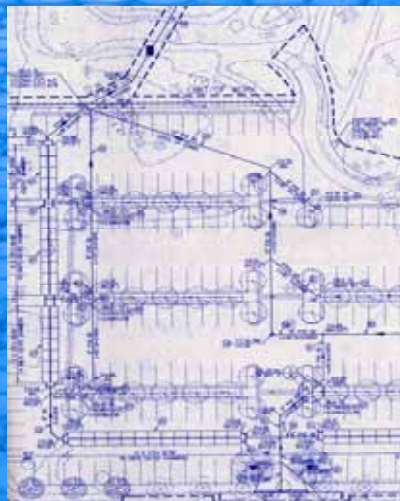
## Rio Hondo Golf Course

- Inverted parking lot design
- Underground cart repair and storage
- Depressed landscaped medians
- Rock surrounded (covered) drainage inlets
- Cultec® infiltration
- Water hazard overflow
- Driveway channel drains (gBMPgb)

## Rio Hondo Country Club: Inverted lot with depressed landscaping



## Rio Hondo Country Club: Cultec® infiltration w/ water hazard overflow



Rio Hondo Country Club: Inverted  
lot with depressed landscaping



Rio Hondo Country Club: Inverted  
lot with depressed landscaping





Rio Hondo Country Club: Rock  
surrounded drainage inlets



Rio Hondo Country Club:  
Driveway channel drains





## 8500 Firestone Boulevard Commercial Complex

- Inverted parking lot design
- Depressed landscaped medians
- Rock transitions and check dams
- Turf grass swale
- Filter fabric covered inlets
- Stormtech® infiltration
- Watershed specific marker discs
- Avoided TPH plume (almost gBMPqb)

## 8500 Firestone Blvd.: Commercial



## 8500 Firestone Blvd.: Commercial



## 8500 Firestone Blvd.: Commercial





## 7676 Firestone Blvd. Supermarket

- Rock lined settling basin
- Turf grass swales with small inlets
- Rainstore<sup>3</sup>© Infiltration
- Roof down spout erosion control
- Crossing drainage paths (gBMPgb)

## 7676 Firestone Blvd. Supermarket



## 7676 Firestone Blvd. Supermarket



## 7676 Firestone Blvd. Supermarket





## 7676 Firestone Blvd. Supermarket



## 7878 Telegraph MTA Parking

- Porous pavement (gBMP, not selected)
- Dedicated discharge to Rio Hondo
- Rock Filled Trench
- Budgeted \$250K for diverted catch basin (almost gBMPgb)

## 7878 Telegraph MTA Parking



## 7878 Telegraph MTA Parking





## Residential Developments



## 8 unit Townhouse



## Multifamily Apartment Complex



## Warren High School Retention Basin

